

[illegible]

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LL          II             SSSSSS
LLLLLLLLLLLL IIIIII          SSSSSSSS
LLLLLLLLLLLL IIIIII          SSSSSSSS

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(1)	54	DECLARATIONS
(1)	82	CONDITION TABLES
(1)	107	TM SETUP, TM CLEANUP
(1)	170	CONDITION SUBROUTINES - SETUP AND CLEANUP
(1)	240	FORM CONDS
(1)	333	VERIFY
(1)	452	VFY_CLEANUP


```
0000 1 .TITLE SATSSS54 SATS SYSTEM SERVICE TESTS $CLREF (SUCC S.C.)
0000 2 .IDENT 'V04-000'
0000 3
0000 4
0000 5 *****
0000 6 *
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0000 24 *
0000 25 *
0000 26 *****
0000 27
0000 28
0000 29 ++
0000 30 FACILITY: SYSTST (SATS SYSTEM SERVICE TESTS)
0000 31
0000 32 ABSTRACT:
0000 33
0000 34 THIS MODULE CONTAINS SUBROUTINES WHICH, WHEN LINKED
0000 35 WITH SUCCOMMON.OBJ, FORM TEST MODULE SATSSS54 TO TEST SUCCESSFUL
0000 36 OPERATION OF THE $CLREF SYSTEM SERVICE. THE SERVICE IS INVOKED
0000 37 UNDER VARIOUS INPUT CONDITIONS WITH VARYING INPUT PARAMETERS. ONLY
0000 38 SUCCESSFUL STATUS CODES ARE EXPECTED IN THIS TEST MODULE. CORRECT
0000 39 OPERATION OF THE SERVICE FOR EACH OF ITS ISSUANCES IS VERIFIED BY
0000 40 CHECKING FOR AN SSS NORMAL STATUS CODE, EXPECTED RETURN ARGUMENTS
0000 41 AND EXPECTED FUNCTIONALITY PERFORMED.
0000 42
0000 43 ENVIRONMENT: USER MODE IMAGE; NEEDS CMKRNL PRIVILEGE,
0000 44 DYNAMICALLY ACQUIRES OTHER PRIVILEGES, AS NEEDED.
0000 45
0000 46 AUTHOR: THOMAS L. CAFARELLA, CREATION DATE: SEP, 1977
0000 47
0000 48 MODIFIED BY:
0000 49
0000 50 : VERSION
0000 51 01
0000 52 --
```


SATSSS54
V04-000

SATS SYSTEM SERVICE TESTS \$CLREF^{J 3} (SUCC 16-SEP-1984 00:57:57 VAX/VMS Macro V04-00
DECLARATIONS 5-SEP-1984 04:32:23 [UETPSY.SRC]SATSSS54.MAR;1 Page 2
(1)

```
0000 54 .SBTTL DECLARATIONS
0000 55 :
0000 56 : INCLUDE FILES:
0000 57 :
0000 58 $PRVDEF ; PRIVILEGE BIT DEFINITIONS
0000 59 $PHDDEF ; PROCESS HEADER OFFSETS
0000 60 :
0000 61 : MACROS:
0000 62 :
0000 63 :
0000 64 : EQUATED SYMBOLS:
0000 65 :
0000 66 :
0000 67 : OWN STORAGE:
0000 68 :
```


SATS SYSTEM SERVICE TESTS \$CLREF^{K 3} (SUCC 16-SEP-1984 00:57:57 VAX/VMS Macro V04-00 Page 3)
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00000000 70      .PSECT  RODATA,RD,NOWRT,NOEXE, LONG
0000      71 TEST_MOD_NAME:: STRING  C,<SATSS54>      ; TEST MODULE NAME
0009      72 TEST_MOD_NAME_D: STRING  I,<SATSS54>      ; TEST MODULE NAME DESCRIPTOR
0019      73 MSG1_INP_CTL:   STRING  I,< SSCEF!4ZW:  CONDITIONS:>
0039      74      ; FAO CTL STRING FOR MSG1 IN SUCCOMMON.MAR
0039      75 MSG3_ERR_CTL::  STRING  I,< *SSCEF!4ZW:  !AS>
0051      76      ; FAO CTL STRING FOR MSG3 IN SUCCOMMON.MAR

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SATSSS54
V04-000

SATS SYSTEM SERVICE TESTS \$CLREF^{L 3} (SUCC 16-SEP-1984 00:57:57 VAX/VMS Macro V04-00 Page 4
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00000000	78	.PSECT	RWDATA, RD, WRT, NOEXE, LONG	
00000008 0000	79	PRIVMASK:	.BLKQ 1	; ADDR OF PRIVILEGE MASK (IN PHD)
0000000C 0008	80	CLUSTER:	.BLKL 1	; STATE ARGUMENT ON READEP SERVICE

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      000C      82      .SBTTL  CONDITION TABLES
      000C      83      :
      000C      84      :
      000C      85      :
      000C      86      ***** CONDITION TABLES FOR CLREF SYSTEM SERVICE *****
      000C      87      COND      1,NOTARG,<CLUSTER NUMBER>,-
      000C      88      <CLUSTER 0 (PROCESS-LOCAL)>,-
      000C      89      <CLUSTER 1 (PROCESS-LOCAL)>,-
      000C      90      <CLUSTER 2 (COMMON)>,-
      000C      91      <CLUSTER 3 (COMMON)>,-
00      0086      92      .BYTE 0      ; CLUSTER NUMBER 0
01      0087      93      .BYTE 1      ; CLUSTER NUMBER 1
02      0088      94      .BYTE 2      ; CLUSTER NUMBER 2
03      0089      95      .BYTE 3      ; CLUSTER NUMBER 3
      008A      96      :
      008A      97      COND      2,NULL
      008B      98      COND      3,NULL
      008B      99      COND      4,NULL
      008C     100      COND      5,NULL
      008C     101      .PSECT  SATSSS54,RD,WRT,EXE
      008D     102
      008D     103
      008E     104
00000000     105

```



```
0000 107 .SBTTL TM_SETUP, TM_CLEANUP
0000 108 :++
0000 109 : FUNCTIONAL DESCRIPTION:
0000 110 :
0000 111 : TM_SETUP AND TM_CLEANUP ARE CALLED TO PERFORM
0000 112 : REQUIRED HOUSEKEEPING AT THE BEGINNING AND END, RESPECTIVELY, OF
0000 113 : TEST MODULE EXECUTION.
0000 114 :
0000 115 : CALLING SEQUENCE:
0000 116 :
0000 117 : BSBW TM_SETUP BSBW TM_CLEANUP
0000 118 :
0000 119 : INPUT PARAMETERS:
0000 120 :
0000 121 : NONE
0000 122 :
0000 123 : IMPLICIT INPUTS:
0000 124 :
0000 125 : NONE
0000 126 :
0000 127 : OUTPUT PARAMETERS:
0000 128 :
0000 129 : NONE
0000 130 :
0000 131 : IMPLICIT OUTPUTS:
0000 132 :
0000 133 : TM_SETUP: COND TABLE INDEX REGISTERS (R2,3,4,5,6) CLEARED;
0000 134 : ALL PRIVILEGES ACQUIRED.
0000 135 :
0000 136 : COMPLETION CODES:
0000 137 :
0000 138 : EFLAG SET TO NON-ZERO IF ERROR ENCOUNTERED.
0000 139 :
0000 140 : SIDE EFFECTS:
0000 141 :
0000 142 : SS_CHECK AND ERR_EXIT MACROS CAUSE PREMATURE EXIT
0000 143 : (VIA RSB) IF ERROR ENCOUNTERED.
0000 144 :
0000 145 : --
0000 146 :
0000 147 :
0000 148 :
0000 149 TM_SETUP::
0000 150 CLRL R2 ; INITIALIZE
0000 151 CLRL R3 ; .. CONDITION
0000 152 CLRL R4 ; .... TABLE
0000 153 CLRL R5 ; ..... INDEX
0000 154 CLRL R6 ; ..... REGISTERS
0000 155 BSBW MOD MSG PRINT ; PRINT TEST MODULE BEGIN MSG
0000 156 MOVAL TEST_MOD_SUCC,TMD_ADDR ; ASSUME END MSG WILL SHOW SUCCESS
0000 157 INSV #SUCCESS,#0,#3,MOD_MSG_CODE ; ADJUST STATUS CODE FOR SUCCESS
0000 158
0000 159 MODE TO,5$,KRNL ; KERNEL MODE TO ACCESS PHD
0000 160 MOVL @#CTL$GL_PHD,R9 ; GET PROCESS HEADER ADDRESS
0000 161 MOVAL PHD$Q_PRIVMSK(R9),PRIVMASK ; GET PRIV MASK ADDRESS
0000 162 MODE FROM,5$ ; BACK TO USER MODE
0000 163 PRIV ADD,ALL ; GET ALL PRIVILEGES
```

52 D4 0000 150
53 D4 0002 151
54 D4 0004 152
55 D4 0006 153
56 D4 0008 154
FFF3' 30 000A 155
00000000'EF 00000000'EF DE 000D 156
03 00 00000000'8F F0 0018 157
00000000'EF 0020
59 00000000'9F D0 0048 158
00000000'EF 69 DE 004F 159
0056 160
0057 161
0057 162

	0077	163	\$SETPRN S TEST MOD_NAME_D	; SET PROCESS NAME
	0084	164	SS_CHECK NORMAL	; CHECK STATUS CODE RETURNED FROM SETPRN
05	00B2	165	RSB	; RETURN TO MAIN ROUTINE
	00B3	166	TM_CLEANUP::	
FF4A'	30	00B3	BSBW MOD_MSG_PRINT	; PRINT TEST MODULE END MSG
05	00B6	168	RSB	; RETURN TO MAIN ROUTINE


```
00B7 170 .SBTTL CONDITION SUBROUTINES - SETUP AND CLEANUP
00B7 171 :++
00B7 172 : FUNCTIONAL DESCRIPTION:
00B7 173 :
00B7 174 :         CONDX AND CONDX CLEANUP ARE SUBROUTINES WHICH ARE EXECUTED
00B7 175 : BEFORE AND AFTER THE VERIFY SUBROUTINE, RESPECTIVELY, WHENEVER A NEW
00B7 176 : CONDITION X VALUE IS SELECTED (SEE FUNCTIONAL DESCRIPTION OF SUCCOMMON
00B7 177 : ROUTINE IN SUCCOMMON.MAR). ANY SETUP FUNCTION PARTICULAR TO THE
00B7 178 : CONDITION X TABLE IS INCLUDED IN THE CONDX SUBROUTINE AND CLEANED
00B7 179 : UP, IF NECESSARY, IN THE CONDX CLEANUP SUBROUTINE. THIS INCLUDES,
00B7 180 : ESPECIALLY, CODE TO DETECT CONFLICTS AMONG CURRENT ENTRIES IN TWO
00B7 181 : OR MORE CONDITION TABLES. IF A CONFLICT IS DETECTED, A NON-ZERO
00B7 182 : VALUE IS STORED INTO CONFLICT, WHICH CAUSES THE CALLING ROUTINE
00B7 183 : (SUCCOMMON) TO SKIP THE CURRENT ENTRY IN THE CONDITION X TABLE.
00B7 184 :
00B7 185 : CALLING SEQUENCE:
00B7 186 :
00B7 187 :         BSBW CONDX   BSBW CONDX_CLEANUP
00B7 188 :         WHERE X = 1,2,3,4,5
00B7 189 :
00B7 190 : INPUT PARAMETERS:
00B7 191 :
00B7 192 :         CONFLICT = 0
00B7 193 :
00B7 194 : IMPLICIT INPUTS:
00B7 195 :
00B7 196 :         R2,3,4,5,6 CONTAIN CURRENT CONDITION TABLE INDEX VALUES
00B7 197 :         FOR COND TABLES 1,2,3,4,5, RESPECTIVELY.
00B7 198 :
00B7 199 : OUTPUT PARAMETERS:
00B7 200 :
00B7 201 :         CONFLICT SET TO NON-ZERO IF COND TABLE CONFLICT DETECTED.
00B7 202 :
00B7 203 : IMPLICIT OUTPUTS:
00B7 204 :
00B7 205 :         R2,3,4,5,6 PRESERVED
00B7 206 :
00B7 207 : COMPLETION CODES:
00B7 208 :
00B7 209 :         NONE
00B7 210 :
00B7 211 : SIDE EFFECTS:
00B7 212 :
00B7 213 :         NONE
00B7 214 :
00B7 215 : --
00B7 216 :
00B7 217 :
00B7 218 :
00B7 219 COND1::
05 00B7 220 RSB ; RETURN TO MAIN ROUTINE
00B8 221 COND1_CLEANUP::
05 00B8 222 RSB ; RETURN TO MAIN ROUTINE
00B9 223 COND2::
05 00B9 224 RSB ; RETURN TO MAIN ROUTINE
00BA 225 COND2_CLEANUP::
05 00BA 226 RSB ; RETURN TO MAIN ROUTINE
```


SATSSS54
V04-000

SATS SYSTEM SERVICE TESTS \$CLREF (SUCC 16-SEP-1984 00:57:57 VAX/VMS Macro V04-00
CONDITION SUBROUTINES - SETUP AND CLEANU 5-SEP-1984 04:32:23 [UETPSY.SRC]SATSSS54.MAR;1 Page 9
D 4 (1)

05	00BB	227	COND3::		
	00BB	228		RSB	; RETURN TO MAIN ROUTINE
	00BC	229	COND3_CLEANUP::		
05	00BC	230		RSB	; RETURN TO MAIN ROUTINE
	00BD	231	COND4::		
05	00BD	232		RSB	; RETURN TO MAIN ROUTINE
	00BE	233	COND4_CLEANUP::		
05	00BE	234		RSB	; RETURN TO MAIN ROUTINE
	00BF	235	COND5::		
05	00BF	236		RSB	; RETURN TO MAIN ROUTINE
	00C0	237	COND5_CLEANUP::		
05	00C0	238		RSB	; RETURN TO MAIN ROUTINE

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```
00C1 240 .SBTTL FORM_CONDS
00C1 241 :++
00C1 242 : FUNCTIONAL DESCRIPTION:
00C1 243 :
00C1 244 :     FORM CONDS FORMATS AND PRINTS INFORMATION ABOUT
00C1 245 :     THE CURRENT ELEMENT IN EACH OF THE CONDITION TABLES.
00C1 246 :
00C1 247 : CALLING SEQUENCE:
00C1 248 :
00C1 249 :     BSBW FORM_CONDS
00C1 250 :
00C1 251 : INPUT PARAMETERS:
00C1 252 :
00C1 253 :     NONE
00C1 254 :
00C1 255 : IMPLICIT INPUTS:
00C1 256 :
00C1 257 :     R2,3,4,5,6 CONTAIN CURRENT CONDITION TABLE INDEX VALUES
00C1 258 :     FOR COND TABLES 1,2,3,4,5, RESPECTIVELY.
00C1 259 :     FOR X = 1,2,3,4,5 :
00C1 260 :         CONDX_T - TITLE TEXT FOR CONDX TABLE
00C1 261 :         CONDX_TAB - ELEMENT TEXT FOR CONDX TABLE
00C1 262 :         CONDX_C - CONTEXT OF THE CONDX TABLE
00C1 263 :         CONDX_E - DATA ELEMENTS OF THE CONDX TABLE
00C1 264 :
00C1 265 : OUTPUT PARAMETERS:
00C1 266 :
00C1 267 :     NONE
00C1 268 :
00C1 269 : IMPLICIT OUTPUTS:
00C1 270 :
00C1 271 :     NONE
00C1 272 :
00C1 273 : COMPLETION CODES:
00C1 274 :
00C1 275 :     NONE
00C1 276 :
00C1 277 : SIDE EFFECTS:
00C1 278 :
00C1 279 :     NONE
00C1 280 :
00C1 281 : --
00C1 282 :
00C1 283 :
00C1 284 :
00C1 285 FORM_CONDS::
00C1 286 $FAO_S MSG1_INP_CTL,FAO_LEN,FAO_DESC,TESTNUM
00E0 287 : FORMAT CONDITIONS HEADER MSG
00E0 288 BSBW OUTPUT_MSG : ... AND PRINT IT
14 00 91 00E3 289 CMPB #COND1_C,#NULL : IS CONDITION 1 NULL ?
00 03 12 00E6 290 BNEQU 10$ : NO -- CONTINUE
00BF 31 00E8 291 BRW FORM_CONDSX : YES -- SUBROUTINE IS FINISHED
00E0 292 10$:
00E0 293 MOVAL COND1_T,MSG_A : SAVE ADDRESS OF CONDITION 1 TITLE FOR FAO
00000000'EF 0000000C'EF DE 00EB 294 MOVL COND1_TAB[R2],MSG_B : SAVE ADDR OF COND 1 CURR TEXT ELT FOR FAO
00000000'EF 0000001C'EF42 D0 00F6 295 MOVB #COND1_C,MSG_CTXT : SAVE CONDITION 1 CONTEXT FOR FAO
00000000'EF 00 90 0102 296 MOV_VAL COND1_C,COND1_E[R2],MSG_DATA1 : GIVE COND 1 DATA VALUE TO FAO
0109 296
```



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      FEF4' 30 0109 297      BSBW WRITE_MSG2      : FORMAT AND WRITE CONDITION 1 MSG
      14 14 91 010C 298      CMPB #COND2_C,#NULL      : IS CONDITION 2 NULL ?
      03 12 010F 299      BNEQU 20$      : NO -- CONTINUE
      0096 31 0111 300      BRW FORM_CONDSX      : YES -- SUBROUTINE IS FINISHED
      0114 301 20$:
00000000'EF 0000008A'EF DE 0114 302      MOVAL COND2_T,MSG_A      : SAVE ADDRESS OF CONDITION 2 TITLE FOR FAO
00000000'EF 0000008A'EF43 D0 011F 303      MOVL COND2_TAB[R3],MSG_B      : SAVE ADDR OF COND 2 CURR TEXT ELT FOR FAO
00000000'EF 14 90 012B 304      MOVB #COND2_C,MSG_CTXT      : SAVE CONDITION 2 CONTEXT FOR FAO
      FECB' 30 0132 305      MOV VAL COND2_C,COND2_E[R3],MSG_DATA1 : GIVE COND 2 DATA VALUE TO FAO
      14 14 91 0135 306      BSBW WRITE_MSG2      : FORMAT AND WRITE CONDITION 2 MSG
      03 12 0138 307      CMPB #COND3_C,#NULL      : IS CONDITION 3 NULL ?
      006D 31 013A 308      BNEQU 30$      : NO -- CONTINUE
      013D 309      BRW FORM_CONDSX      : YES -- SUBROUTINE IS FINISHED
      00000000'EF 0000008B'EF DE 013D 310 30$:
00000000'EF 0000008B'EF44 D0 0148 311      MOVAL COND3_T,MSG_A      : SAVE ADDRESS OF CONDITION 3 TITLE FOR FAO
00000000'EF 14 90 0154 312      MOVL COND3_TAB[R4],MSG_B      : SAVE ADDR OF COND 3 CURR TEXT ELT FOR FAO
      FEA2' 30 015B 313      MOVB #COND3_C,MSG_CTXT      : SAVE CONDITION 3 CONTEXT FOR FAO
      14 14 91 015B 314      MOV VAL COND3_C,COND3_E[R4],MSG_DATA1 : GIVE COND 3 DATA VALUE TO FAO
      47 13 0161 315      BSBW WRITE_MSG2      : FORMAT AND WRITE CONDITION 3 MSG
      00000000'EF 0000008C'EF DE 0163 316      CMPB #COND4_C,#NULL      : IS CONDITION 4 NULL ?
      00000000'EF 0000008C'EF45 D0 016E 317      BEQLU FORM_CONDSX      : YES -- SUBROUTINE IS FINISHED
      00000000'EF 14 90 017A 318      MOVAL COND4_T,MSG_A      : SAVE ADDRESS OF CONDITION 4 TITLE FOR FAO
      FE7C' 30 0181 319      MOVL COND4_TAB[R5],MSG_B      : SAVE ADDR OF COND 4 CURR TEXT ELT FOR FAO
      14 14 91 0184 320      MOVB #COND4_C,MSG_CTXT      : SAVE CONDITION 4 CONTEXT FOR FAO
      21 13 0187 321      MOV VAL COND4_C,COND4_E[R5],MSG_DATA1 : GIVE COND 4 DATA VALUE TO FAO
      00000000'EF 0000008D'EF DE 0189 322      BSBW WRITE_MSG2      : FORMAT AND WRITE CONDITION 4 MSG
      00000000'EF 0000008D'EF46 D0 0194 323      CMPB #COND5_C,#NULL      : IS CONDITION 5 NULL ?
      00000000'EF 14 90 01A0 324      BEQLU FORM_CONDSX      : YES -- SUBROUTINE IS FINISHED
      FE56' 30 01A7 325      MOVAL COND5_T,MSG_A      : SAVE ADDRESS OF CONDITION 5 TITLE FOR FAO
      01AA 326      MOVL COND5_TAB[R6],MSG_B      : SAVE ADDR OF COND 5 CURR TEXT ELT FOR FAO
      01A7 327      MOVB #COND5_C,MSG_CTXT      : SAVE CONDITION 5 CONTEXT FOR FAO
      01AA 328      MOV VAL COND5_C,COND5_E[R6],MSG_DATA1 : GIVE COND 5 DATA VALUE TO FAO
      05 01AA 329      BSBW WRITE_MSG2      : FORMAT AND WRITE CONDITION 5 MSG
      01AA 330 FORM_CONDSX:
      01AA 331 RSB      : RETURN TO CALLER
```



```
01AB 333      .SBTTL VERIFY
01AB 334      :++
01AB 335      : FUNCTIONAL DESCRIPTION:
01AB 336      :
01AB 337      :         VERIFY IS CALLED ONCE FOR EACH COMBINATION OF CONDITION
01AB 338      :         TABLE VALUES (AS DETERMINED BY THE INDEX REGISTERS R2,3,4,5,6 FOR
01AB 339      :         COND TABLES 1,2,3,4,5, RESPECTIVELY). VERIFY ESTABLISHES THE CONDITIONS
01AB 340      :         SPECIFIED BY THE COND TABLES AND ISSUES THE SUBJECT SYSTEM SERVICE
01AB 341      :         ($CLREF). THEN, THE SUCCESSFUL OPERATION OF THE SERVICE IS VERIFIED
01AB 342      :         BY EXAMINING THE STATUS CODE RETURNED, THE VALUES FOR RETURN ARGUMENTS
01AB 343      :         AND THE FUNCTIONALITY PERFORMED. THE EXAMINATIONS TAKE THE FORM OF
01AB 344      :         COMPARISONS AGAINST EXPECTED VALUES. ANY FAILING COMPARISON CAUSES AN
01AB 345      :         ERR_EXIT MACRO TO BE EXECUTED (EITHER DIRECTLY, OR INDIRECTLY,
01AB 346      :         THROUGH THE SS_CHECK MACRO); ERR_EXIT SETS EFLAG TO NON-ZERO,
01AB 347      :         PRINTS ERROR MESSAGES AND CAUSES AN IMMEDIATE RSB TO CALLER.
01AB 348      :         WHEN ERR_EXIT IS EXECUTED, FURTHER CALLS TO VERIFY ARE SUPPRESSED,
01AB 349      :         AND, AFTER EXECUTING CLEANUP SUBROUTINES, THE IMAGE EXITS.
01AB 350      :
01AB 351      : CALLING SEQUENCE:
01AB 352      :
01AB 353      :         BSBW VERIFY
01AB 354      :
01AB 355      : INPUT PARAMETERS:
01AB 356      :
01AB 357      :         NONE
01AB 358      :
01AB 359      : IMPLICIT INPUTS:
01AB 360      :
01AB 361      :         R2,3,4,5,6 CONTAIN CURRENT CONDITION TABLE INDEX VALUES
01AB 362      :         FOR COND TABLES 1,2,3,4,5, RESPECTIVELY.
01AB 363      :         FOR X = 1,2,3,4,5 :
01AB 364      :             CONDX_E - ADDRESS OF TABLE OF DATA VALUES FOR CONDX
01AB 365      :             TABLE. IF THE CONTEXT OF TABLE X IS A SYSTEM SERVICE
01AB 366      :             ARGUMENT, THE ARGUMENT NAME MAY BE USED AS A SYNONYM
01AB 367      :             FOR CONDX_E.
01AB 368      :
01AB 369      : OUTPUT PARAMETERS:
01AB 370      :
01AB 371      :         NONE
01AB 372      :
01AB 373      : IMPLICIT OUTPUTS:
01AB 374      :
01AB 375      :         VERIFY HAS NO OUTPUT. SINCE ITS PURPOSE IS TO TEST FOR ERRORS,
01AB 376      :         IT MERELY RETURNS TO CALLER NORMALLY AFTER THE TESTS, PROVIDING
01AB 377      :         ALL WERE SUCCESSFUL; IF AN ERROR IS DISCOVERED, RETURN IS VIA
01AB 378      :         AN ERR_EXIT OR SS_CHECK MACRO, BOTH OF WHICH DOCUMENT DETECTED
01AB 379      :         ERRORS.
01AB 380      :
01AB 381      : COMPLETION CODES:
01AB 382      :
01AB 383      :         EFLAG SET TO NON-ZERO IF ERROR ENCOUNTERED.
01AB 384      :
01AB 385      : SIDE EFFECTS:
01AB 386      :
01AB 387      :         SS_CHECK AND ERR_EXIT MACROS CAUSE PREMATURE EXIT
01AB 388      :         (VIA RSB) IF ERROR ENCOUNTERED.
01AB 389      :
```



```
01AB 390 ;--
01AB 391
01AB 392
01AB 393
01AB 394 VERIFY::
00000000'EF 95 01AB 395 TSTB CFLAG ; SHOULD CONDITIONS BE PRINTED ?
03 13 01B1 396 BEQL 5$ ; NO -- CONTINUE
FF0B 30 01B3 397 BSBW FORM_CONDS ; YES -- FMT & PRINT ALL CONDS FOR THIS T.C.
58 00000086'EF42 9A 01B6 398 5$: MOVZBL COND1_E[R2],R8 ; GET CLUSTER NO. INTO REGISTER
58 58 05 78 01BE 400 ASHL #5,R8,R8 ; MULT BY 32 TO GET 1ST EVENT FLAG NO.
59 D4 01C2 401 CLRL R9 ; ESTAB OFFSET INTO CLUSTER FOR 1ST FLAG
02 00000086'EF42 91 01C4 402 CMPB COND1_E[R2],#2 ; COMMON CLUSTER ?
41 19 01CC 403 BLSS 15$ ; NO -- BYPASS THE ASSOCIATE SERVICE
01CE 404 $ASCEFC S EFN=R8, NAME=TEST_MOD_NAME_D ; YES -- ASSOCIATE
01E1 405 SS_CHECK NORMAL ; ... CLUSTER & CHECK STATUS CODE
020F 406 15$: MOVL R8,R10 ; ESTAB CURRENT EFN IN REG 10
5B 5A 58 D0 020F 407 ADDL3 #31,R10,R11 ; ESTAB HIGH EFN FOR THIS CLUSTER
1F C1 0212 408 20$: $SETEF_S EFN=R10 ; SET CURRENT EVENT FLAG
00000000'8F 50 D1 021F 411 CMPL R0,#SS$_WASSET ; WASSET STATUS CODE ?
2E 13 0226 412 BEQLU 25$ ; YES -- GO LOOP FOR ANOTHER SETEF
0228 413 SS_CHECK WASCLR ; NO -- BETTER BE WASCLR, THEN
FFBA 5A 01 5B 3D 0256 414 25$: ACBW R11,#1,R10,20$ ; INCREMENT TO NEXT EFN & LOOP
5A 59 58 81 025C 415 30$: ADDB3 R8,R9,R10 ; COMPUTE EVENT FLAG NUMBER
025E 416
0260 417
0260 418 : ***** SYSTEM SERVICE CALL WHICH IS THE SUBJECT OF THIS TEST CASE *****
0260 419
0260 420
00000000'8F 50 D1 0269 421 $CLREF_S EFN=R10 ; CLEAR EVENT FLAG
60 13 0270 422 CMPL R0,#SS$_WASSET ; CODE RECEIVED = CODE EXPECTED ?
00000000'EF 00000000'8F D0 0272 423 BEQLU 40$ ; YES -- CONTINUE
00000000'EF 50 D0 027D 424 MOVL #SS$_WASSET,EXPV ; LOAD UP EXPECTED AND ...
0284 425 MOVL R0,RCV ; ... RECEIVED VALUES, THEN EXIT
02D2 426 ERR_EXIT LONG,<INCORRECT STATUS CODE RETURNED FROM CLREF>
02D2 427 40$: $READEF_S EFN=R8, STATE=CLUSTER ; READ CURRENT CLUSTER
02E1 428 SS_CHECK WASCLR ; ... AND CHECK ITS STATUS
5B D4 030F 430 CLRL R11 ; CLEAR REGISTERS TO ALLOW ...
57 D4 0311 431 CLRL R7 ; ... BYTE OPERATIONS ON THEM
00000000'EF 5B 59 01 81 0313 432 ADDB3 #1,R9,R11 ; COMPUTE NUMBER OF 0-BITS TO COMPARE
00000000'EF 5B 00 00 F0 0322 433 MOVL ONES,EXPV ; ESTAB EXPECTED VALUE FOR ...
00000000'EF 00000008'EF D0 032B 434 INSV #0,#0,R11,EXPV ; ... POSSIBLE ERR EXIT
00 00000008'EF 5B 00 00 EC 0336 435 MOVL CLUSTER,RCV ; ESTAB RECEIVED VALUE AS WELL
4D 13 033F 436 CMPV #0,R11,CLUSTER,#0 ; ARE ALL EXPECTED EVENT FLAGS CLEAR ?
0341 437 BEQL 50$ ; YES -- GO LOOK AT SET FLAGS
038E 438 ERR_EXIT LONG,<EVENT FLAG(S) IN CLUSTER SHOULD BE CLEAR>
038E 439 ; NO -- GENERATE ERROR & EXIT
59 1F 91 038E 440 50$: CMPB #31,R9 ; IS CURRENT EFN HIGHEST IN CLUSTER ?
64 13 0391 441 BEQL 60$ ; YES -- THEN CLUSTER IS ALL ZERO BITS
57 1F 59 83 0393 442 SUBB3 R9,#31,R7 ; NO -- COMPUTE NO. OF 1-BITS TO COMPARE
00000008'EF 57 5B EC 0397 443 CMPV R11,R7,CLUSTER,ONES ; ARE ALL EV FLAGS NOT YET CLRED STILL SET ?
00000000'EF 51 13 039F 444 BEQL 60$ ; YES -- GO LOOK AT NEXT EVENT FLAG
03A4 445
```


SATSSS54
V04-000

SATS SYSTEM SERVICE TESTS \$CLREF^{I 4} (SUCC 16-SEP-1984 00:57:57 VAX/VMS Macro V04-00 Page 14
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				03A6	446		ERR_EXIT LONG,<EVENT FLAG(S) IN CLUSTER SHOULD NOT BE CLEAR>
				03F7	447		; NO -- GENERATE ERROR & EXIT
				03F7	448	60\$:	
FE5F	59	01	1F	9D	03F7	449	ACBB #31,#1,R9,30\$; INCR TO NEXT EFN IN THIS CLUSTER & LOOP
				05	03FD	450	RSB ; RETURN TO CALLER


```
03FE 452 .SBTTL VFY_CLEANUP
03FE 453 :++
03FE 454 : FUNCTIONAL DESCRIPTION:
03FE 455 :
03FE 456 : VFY_CLEANUP EXECUTES SYSTEM SERVICES TO UNDO THE
03FE 457 : EFFECT OF THOSE ISSUED IN THE VERIFY SUBROUTINE. VFY_CLEANUP MUST
03FE 458 : ASSUME THAT VERIFY MAY NOT HAVE EXECUTED IN ITS ENTIRETY (IF AN
03FE 459 : ERROR IS FOUND). ALSO, VFY_CLEANUP MAY ISSUE SS_CHECK OR ERR_EXIT
03FE 460 : ONLY AFTER PERFORMING ALL OF ITS CLEANUP OPERATIONS; THIS IS REQUIRED
03FE 461 : IN THE EVENT THAT VFY_CLEANUP IS CALLED DURING ERROR PROCESSING,
03FE 462 : WHEN PERFORMING THE REQUIRED CLEANUP IS MORE IMPORTANT THAN
03FE 463 : POSSIBLY DISCOVERING A SECOND ERROR.
03FE 464 :
03FE 465 : CALLING SEQUENCE:
03FE 466 :
03FE 467 : BSBW VFY_CLEANUP
03FE 468 :
03FE 469 : INPUT PARAMETERS:
03FE 470 :
03FE 471 : NONE
03FE 472 :
03FE 473 : IMPLICIT INPUTS:
03FE 474 :
03FE 475 : R2,3,4,5,6 CONTAIN CURRENT CONDITION TABLE INDEX VALUES
03FE 476 : FOR COND TABLES 1,2,3,4,5, RESPECTIVELY.
03FE 477 : FOR X = 1,2,3,4,5 :
03FE 478 : CONDX_E - ADDRESS OF TABLE OF DATA VALUES FOR CONDX
03FE 479 : TABLE. IF THE CONTEXT OF TABLE X IS A SYSTEM SERVICE
03FE 480 : ARGUMENT, THE ARGUMENT NAME MAY BE USED AS A SYNONYM
03FE 481 : FOR CONDX_E.
03FE 482 :
03FE 483 : OUTPUT PARAMETERS:
03FE 484 :
03FE 485 : NONE
03FE 486 :
03FE 487 : IMPLICIT OUTPUTS:
03FE 488 :
03FE 489 : NONE
03FE 490 :
03FE 491 : COMPLETION CODES:
03FE 492 :
03FE 493 : EFLAG SET TO NON-ZERO IF ERROR ENCOUNTERED.
03FE 494 :
03FE 495 : SIDE EFFECTS:
03FE 496 :
03FE 497 : SS_CHECK AND ERR_EXIT MACROS CAUSE PREMATURE EXIT
03FE 498 : (VIA RSB) IF ERROR ENCOUNTERED.
03FE 499 :
03FE 500 :--
03FE 501 :
03FE 502 :
03FE 503 :
05 03FE 504 VFY_CLEANUP::
03FE 505 RSB ; RETURN TO CALLER
03FF 506 .END
```


SATSSS54
Symbol table

SATS SYSTEM SERVICE TESTS \$CLREF^{K 4} (SUCC

16-SEP-1984 00:57:57 VAX/VMS Macro V04-00
5-SEP-1984 04:32:23 [UETPSY.SRC]SATSSS54.MAR;1

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(1)

```

$$$$ = 000003B0 R 04
$$$$CHARS = 0000002C
$$$$CHARS1 = 00000019
$$$$CHARS2 = 00000019
$$$$CHARS3 = 00000012
$$$$CHARS4 = 00000012
$$$$CHARS5 = 00000000
$$$$COND_A = 00000003
$$$$STRINGS = 00000001
$$$$STRINGS2 = 00000005
$$T1 = 00000000
$$T2 = 00000004
BYTE = 00000001 G
CFLAG = ***** X 04
CHMRTN = ***** X 04
CHM_CONT = ***** X 04
CLUSTER = 00000008 R 03
COMP_SC = ***** X 04
COND1 = 000000B7 RG 04
COND1_C = 00000000
COND1_CLEANUP = 000000B8 RG 04
COND1_E = 00000086 R 03
COND1_H = 0000001B RG 03
COND1_T = 0000000C R 03
COND1_TAB = 0000001C R 03
COND2 = 000000B9 RG 04
COND2_C = 00000014
COND2_CLEANUP = 000000BA RG 04
COND2_H = 0000008A RG 03
COND2_T = 0000008A R 03
COND2_TAB = 0000008A R 03
COND3 = 000000BB RG 04
COND3_C = 00000014
COND3_CLEANUP = 000000BC RG 04
COND3_H = 0000008B RG 03
COND3_T = 0000008B R 03
COND3_TAB = 0000008B R 03
COND4 = 000000BD RG 04
COND4_C = 00000014
COND4_CLEANUP = 000000BE RG 04
COND4_H = 0000008C RG 03
COND4_T = 0000008C R 03
COND4_TAB = 0000008C R 03
COND5 = 000000BF RG 04
COND5_C = 00000014
COND5_CLEANUP = 000000C0 RG 04
COND5_H = 0000008D RG 03
COND5_T = 0000008D R 03
COND5_TAB = 0000008D R 03
CTL$GL_PHD = ***** X 04
DESC = 00000010 G
EFLAG = ***** X 04
EXPV = ***** X 04
FAO_DESC = ***** X 04
FAO_LEN = ***** X 04
FORM_CONDS = 000000C1 RG 04
FORM_CONDSX = 000001AA R 04
```

```

LONG
MOD_MSG_CODE
MOD_MSG_PRINT
MSGT_INP_CTL
MSG3_ERR_CTL
MSG_A
MSG_B
MSG_CTXT
NOTARG
NULL
ONES
OUTPUT_MSG
PCV
PHDSQ PRIVMSK
PRIVMSK
PRIV_ARGS
PROCESS_ERR
QUAD
RECV
REST_REGS
SAVE_REGS
SS$_NORMAL
SS$_WASCLR
SS$_WASSET
SUCCESS
SYSS$ACEFC
SYSS$CLREF
SYSS$CMKRNL
SYSS$FAO
SYSS$READEF
SYSS$SETEF
SYSS$SETPRN
SYSS$SETPRV
TESTNUM
TEST_MOD_NAME
TEST_MOD_NAME_D
TEST_MOD_SUCC
TMD_ADDR
TM_CLEANUP
TM_SETUP
VERIFY
VFY_CLEANUP
WORD
WRITE_MSG2
```

```

= 00000004 G
***** X 04
***** X 04
00000019 R 02
00000039 RG 02
***** X 04
***** X 04
***** X 04
= 00000000 G
= 00000014 G
***** X 04
***** X 04
***** X 04
= 00000000
00000000 R 03
= 00000002
***** X 04
= 00000008 G
***** X 04
***** X 04
***** X 04
***** X 04
***** X 04
***** X 04
***** GX 04
***** GX 04
***** GX 04
***** X 04
***** GX 04
***** GX 04
***** GX 04
***** GX 04
***** GX 04
***** X 04
00000000 RG 02
00000009 R 02
***** X 04
***** X 04
000000B3 RG 04
00000000 RG 04
000001AB RG 04
000003FE RG 04
= 00000002 G
***** X 04
```

SAT
V04

+-----+
! Psect synopsis !
+-----+

PSECT name	Allocation	PSECT No.	Attributes
ABS	00000000 (0.)	00 (0.)	NOPIC USR CON ABS LCL NOSHR NOEXE NORD NOWRT NOVEC BYTE
\$ABSS	00000000 (0.)	01 (1.)	NOPIC USR CON ABS LCL NOSHR EXE RD WRT NOVEC BYTE
RODATA	00000051 (81.)	02 (2.)	NOPIC USR CON REL LCL NOSHR NOEXE RD NOWRT NOVEC LONG
RWDATA	0000008E (142.)	03 (3.)	NOPIC USR CON REL LCL NOSHR NOEXE RD WRT NOVEC LONG
SATSSS54	000003FF (1023.)	04 (4.)	NOPIC USR CON REL LCL NOSHR EXE RD WRT NOVEC BYTE

+-----+
! Performance indicators !
+-----+

Phase	Page faults	CPU Time	Elapsed Time
Initialization	29	00:00:00.08	00:00:00.34
Command processing	110	00:00:00.69	00:00:01.66
Pass 1	231	00:00:05.73	00:00:11.03
Symbol table sort	0	00:00:00.43	00:00:00.65
Pass 2	106	00:00:01.55	00:00:02.43
Symbol table output	14	00:00:00.08	00:00:00.09
Psect synopsis output	1	00:00:00.03	00:00:00.05
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	493	00:00:08.59	00:00:16.25

The working set limit was 1200 pages.
28528 bytes (56 pages) of virtual memory were used to buffer the intermediate code.
There were 20 pages of symbol table space allocated to hold 295 non-local and 28 local symbols.
506 source lines were read in Pass 1, producing 22 object records in Pass 2.
35 pages of virtual memory were used to define 26 macros.

+-----+
! Macro library statistics !
+-----+

Macro library name	Macros defined
-\$255\$DUA28:[SHRLIB]UETP.MLB;1	8
-\$255\$DUA28:[SYS.OBJ]LIB.MLB;1	1
-\$255\$DUA28:[SYSLIB]STARLET.MLB;2	14
TOTALS (all libraries)	23

620 GETS were required to define 23 macros.

There were no errors, warnings or information messages.

MACRO/LIS=LIS\$:SATSSS54/OBJ=OBJ\$:SATSSS54 MSRC\$:SATSSS54/UPDATE=(ENH\$:SATSSS54)+EXECML\$/LIB+SHRLIB\$:UETP/LIB

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